November 30, 2005

MEMORANDUM TO: John N. Hannon, Deputy Director

Division of Safety Systems

Office of Nuclear Reactor Regulations

FROM: Michele G. Evans, Chief /RA/

Engineering Research Applications Branch

Division of Engineering Technology Office of Nuclear Regulatory Research

SUBJECT: TRANSMITTAL OF INTEGRATED CHEMICAL EFFECTS TEST

PROJECT: TEST #4 DATA REPORT AND APPENDICES

The enclosed subject Integrated Chemical Effects Test (ICET) test #4 data report is provided to support regulatory activities associated with GL2004-02. This data report provides the experimental results associated with ICET test #4. Results include a description of the test observations and process control parameters. The report also describes the results of post-test analysis on the sample coupons, fiberglass insulation samples, water chemistry, and precipitated solids. The enclosed appendices contain a more comprehensive set of the analyses conducted on these products.

Similar data report will be provided for the final ICET test # 5. All test information will also be summarized in a NUREG/CR report that will be prepared once the individual test data reports have been provided. It is intended that the attached report and appendices be placed on the GSI-191 website and used to inform the public about current findings related to the ICET project.

Enclosures: 1. Integrated Chemical Effects Test Project: Test #4 Data Report

2. Preface to Appendices

3. ESEM/EDS Data for Test #4 Day-5 Fiberglass in Low-Flow Zone

- 4. ESEM/EDS Data for Test #4 Day-15 Fiberglass in Low-Flow Zones
- 5. ESEM/EDS Data for Test #4 Day-15 Fiberglass in High-Flow Zones
- 6 ESEM/EDS Data for Test #4 Day-30 Fiberglass in Low-Flow Zones
- 7. ESEM/EDS Data for Test #4 Day-30 Fiberglass Inserted in Nylon Mesh in Low-Flow Zones
- 8. ESEM Data for Test #4 Day-30 Low-Flow Fiberglass Samples in a Big Envelope
- 9. ESEM/EDS Data for Test #4 Day-30 Fiberglass in High-Flow Zones
- ESEM/EDS Data for Test #4 Day-30 Fiberglass inserted in Front of Header in High-Flow Zones

- 11. ESEM/EDS Data for Test #4 Day-30 Drain Collar Fiberglass
- 12. ESEM/EDS Data for Test #4 Day-30 Birdcage Fiberglass
- ESEM/EDS Data for Test #4 Day-30Low-Flow Cal-sil Samples 13.
- 14. ESEM and SEM/EDS Data for Test #4 Day-30 Deposition Products
- SEM/EDS Data for Test #4 Day-30 Aluminum Coupons 15.
- 16. SEM/EDS Data for Test #4 Day-30 Copper Coupons
- SEM/EDS Data for Test #4 Day-30 Galvanized Steel Coupons 17.
- 18. SEM/EDS Data for Test #4 Day-30 Steel Coupons
- 19. ESEM/EDS Data for Test #4 Day-30 Sediment
- 20. TEM Data for Test #4 Solution Samples
- UV Absorbance Spectrum Day-30 Solution Samples 21.
- ICET Test #4: Pre-Test, Test, and Post-Test Project Instructions 22.

DISTRIBUTION: ERAB R/F DET R/F

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